

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:477
ANSWERED ON:02.12.2015
Research Papers by Scientists
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Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) Whether the Council of Scientific and Industrial Research (CSIR) promotes/provides assistance to scientists working in its various institutions/laboratories to publish their findings in reputed International Science Journals and if so, the details thereof along with the number of papers published during 2014 and 2015, till date;
- (b) Whether a reputed International Science Journal has retracted some papers prepared by scientists of the CSIR reportedly due to fake data in the manuscript presented to them;
- (c) If so, the details thereof and the reaction of the Government thereto;
- (d) Whether the Government/CSIR has conducted any investigation in the matter, if so, the details and the findings thereof and the action taken against the erring scientists; and
- (e) the remedial measures taken or being taken by the Government/CSIR for preventing the recurrence of such instances?

Answer

MINISTER OF STATE FOR SCIENCE AND TECHNOLOGY AND EARTH SCIENCES
(SHRI Y.S. CHOWDARY)

(a) Yes Madam. The Council of Scientific and Industrial Research (CSIR) through its constituent laboratories has published 5824 papers in 2014. In 2015, so far 4888 papers have been published.

(b)&(c) CSIR has retracted six papers, details of which are as below:

- (i) Khan, F.; Pal, D.; Vikram, S. and Cameotra S.S. (2013). Metabolism of 2-Chloro-4-Nitroaniline via Novel Aerobic Degradation Pathway by Rhodococcus sp. Strain MB-P1. Plos One, 8: e62178;
- (ii) Khan, F.; Kumari, M. and Cameotra, S.S. (2013). Biodegradation of Allelopathic Chemical m-tyrosine by Bacillus aquimaris SSC5 Involves the Homogentisate Central Pathway. PLoS One, 8, e75928;
- (iii) Khan, F.; Vyas, B.; Pal, D. and Cameotra, S.S. (2013). Aerobic degradation of N-methyl-4-nitroaniline (MNA) by Pseudomonas sp. strain FK357 isolated from soil. PLoS One, 8, e75046, 2013;
- (iv) Khan, F.; Pal, D.; Ghosh, A. and Cameotra, S.S. (2013). Degradation of 2,4-dinitroanisole (DNAN) by metabolic cooperative activity of Pseudomonas sp. strain FK357 and Rhodococcus imtechensis strain RKJ300. Chemosphere, 93, 2883-2888;
- (v) Khan, F.; Pandey, J.; Vikram, S.; Pal, D. and Cameotra, S.S. (2013). Aerobic degradation of 4-nitroaniline (4-NA) via novel degradation intermediates by Rhodococcus sp. strain FK48. Journal of Hazardous Materials, 254-255C: 72-78; and
- (vi) Khan, F.; Pal, D.; Ghosh, A. and Cameotra, S.S. (2013). Aerobic Degradation of 2-1 Iexaone by a Rhodococcus Sp. Strain MB-P1 via Novel pathway. Journal of Petroleum and Environmental Biotechnology, 4(4): 1000151 doi 10.1016.

(d) Yes Madam. Soon after receiving an alert from an outsider raising suspicion about the authenticity of the data in some papers published by one particular group, the concerned CSIR constituent laboratory, namely CSIR-Institute of Microbial Technology (CSIR-IMTECH), Chandigarh constituted a fact finding committee, which concluded that the raw data in support of aforementioned six papers was not available with authors, and experiments described in these six papers were not done at CSIR-IMTECH. Hence, the Committee was of the view that all six papers may be retracted. They were thus retracted.

Disciplinary proceedings have been initiated against the erring scientist under Rule-14 of CCS (CCA), 1965 for major penalty.

(e) Every scientist is required to diligently record experimental details in a note book and preserve raw data/machine data for future scrutiny. All students are required to study Good Laboratory Practice (GLP) during their pre Ph.D. course work and follow it in letter and spirit. Also, immediately on joining the CSIR laboratories, the students are sensitized about following high standards of research practices and continuously mentored for imbibing ethics, in collection and analyses of experimental data, among others.

The competent authority has constituted an "Ombudsman Authority" consisting of senior scientists of the Institute. The Ombudsman Authority examines the authenticity of the data in research papers in a random manner. This includes papers which have been published/ communicated to journals by CSIR-IMTECH scientists. Further, the Ombudsman Authority is mandated to suggest measures that should be put in place, so that such instances are avoided. The measures suggested should help in process improvement across CSIR laboratories as well.
